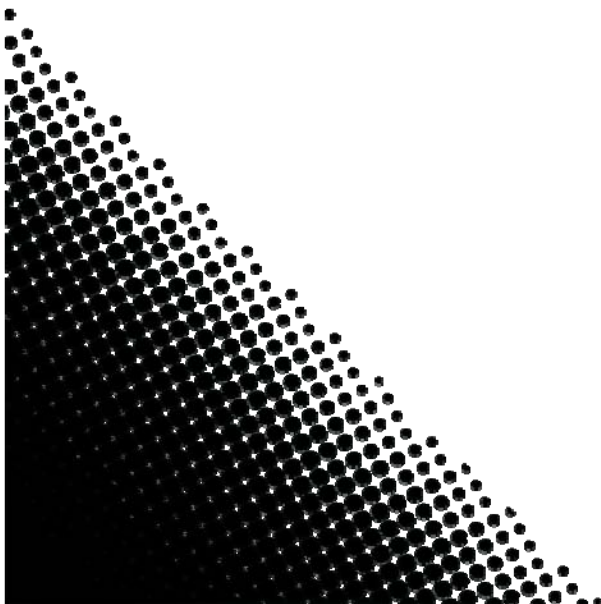
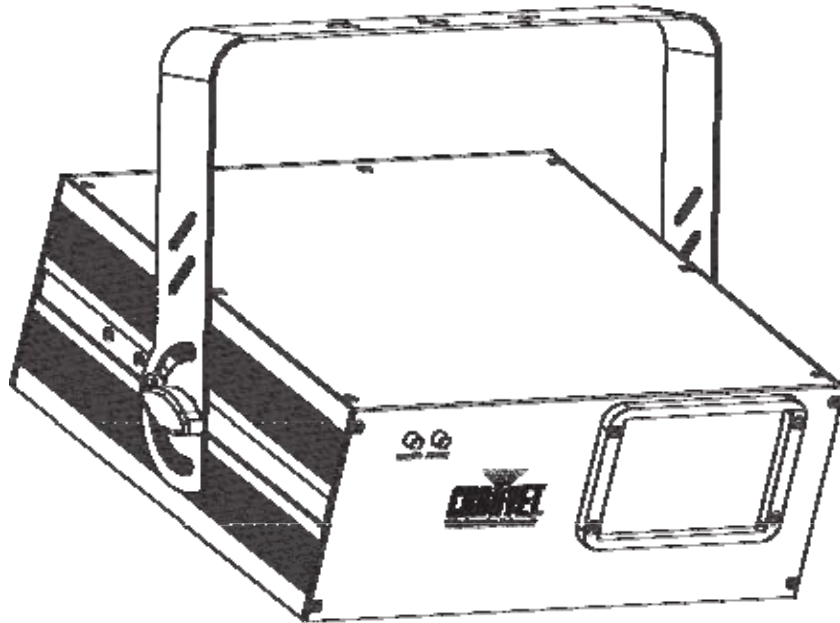




## User Manual



LASER LIGHT  
AVOID DIRECT EYE EXPOSURE  
CLASS IIIa LASER PRODUCT  
CLASSIFIED PER 21 CFR 1040.10 & .11  
Complies with US FDA CDRH laser safety  
standards 21 CFR 1040.10 & 1040.11.



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## Document Information

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## Product at a Glance

Use on Dimmer	⊘	Auto Programs	✓
Outdoor Use	⊘	Auto-ranging Power Supply	✓
Sound Activated	✓	Replaceable Fuse	✓
DMX	✓	User Serviceable	⊘
Master/Slave	✓	Duty Cycle	⊘

---

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# 1. BEFORE YOU BEGIN

## What Is Included

1 x Scorpion™ GBC  
1 x Power Cord

1 x Warranty Card  
1 x User Manual

## Unpacking Instructions

Immediately upon receiving this product, carefully unpack it and check the container in which you received it. Make sure that you have received all the parts indicated above and that they are all in good condition.

## Claims




If the container or the material inside the container (including any accessory) appears damaged from shipping, or shows signs of mishandling, notify the shipper immediately, not CHAUVET®. Failure to report damage in a timely manner may invalidate your claim with the carrier. In addition, retain the container and all the packing material for inspection.

For other issues such as missing components or parts, damage not related to shipping, or concealed damage, you should make claims to CHAUVET® within seven (7) days of receiving the merchandise.

## Text Conventions

Convention	Meaning
<Menu>	A key to be pressed on the product's control panel
1~512	A range of values
50/60	A set of values of which only one can be chosen
<b>Settings</b>	A menu option not to be modified (for example, showing the operating mode/current status)
<b>Menu &gt; Settings</b>	A sequence of menu options to be followed
ON	A value to be entered or selected

## Icons

Icon	Meaning
	This paragraph contains critical installation, configuration, or operation information. Failure to comply with this information may render the product partially or completely inoperative, cause damage to the product, or cause harm to the user.
	This paragraph contains important installation or configuration information. Failure to comply with this information may prevent the product from functioning correctly.
	This paragraph reminds you of useful, although not critical, information.

---

## Safety Notes



**CAUTION!** The use of optical instruments with this product will increase eye hazard.



Please read the following notes carefully because they include important safety information about the installation, usage, and maintenance of this product.

- Keep this User Manual for future consultation. If you sell this product to another user, be sure that they also receive this document.
- Always make sure that the voltage of the outlet to which you are connecting this product is within the range stated on the decal or rear panel of the product.
- This product is for indoor use only! To prevent risk of fire or shock, do not expose this product to rain or moisture.
- Make sure there are no flammable materials close to the unit while operating.
- Always install this product in a location with adequate ventilation, at least 20 in (50 cm) from adjacent surfaces. Be sure that no ventilation slots are blocked.
- Always disconnect this product from the power source before cleaning it or replacing fuse.
- Make sure to replace the fuse with another of the same type and rating.
- If mounting it overhead, always secure this product to a fastening device using a safety chain.
- The maximum ambient temperature (Ta) is 104° F (40° C). Do not operate this product at higher temperatures.
- In the event of a serious operating problem, stop using the unit immediately. Never try to repair the unit. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center.
- Never connect this product to a dimmer pack.
- Make sure the power cord is not crimped or damaged.
- Never disconnect the power cord by pulling or tugging on the cord.
- Never carry a product from the power cord or any moving part. Always use the hanging/mounting bracket or the handles.
- Always avoid direct eye exposure to the light source when this product is on.
- Lasers can be hazardous and have unique safety considerations. Permanent eye injury and blindness is possible if lasers are used incorrectly. Pay close attention to each safety REMARK and WARNING statement in this user manual. Read all instructions carefully BEFORE operating this device.



- **Avoid direct eye contact with laser light. Never intentionally expose your eyes or others to direct laser light.**
- **This laser product can potentially cause instant eye injury or blindness if laser light directly strikes the eyes.**
- **It is illegal and dangerous to shine this laser into audience areas, where the audience or other personnel could get direct laser beams or bright reflections into their eyes.**
- **It is a US Federal offense to shine any laser at aircraft.**
- **Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.**
- **There are no user serviceable parts inside the unit. Do not open the housing or attempt any repairs yourself. In the unlikely event your unit may require service, please contact the dealer nearest to you.**

---

## Non Interlocked Housing Warning

- This unit contains high power laser devices internally.
- Do not open the laser housing, due to potential exposure to unsafe levels of laser radiation.
- The laser power levels, accessible if the unit is opened, can cause instant blindness, skin burns, and fires.

## Laser Safety Notes



### STOP AND READ ALL THE LASER SAFETY NOTES BELOW

Laser Light is different from any other light sources with which you may be familiar. The light from this product can potentially cause eye injury if not set up and used properly. Laser light is thousands of times more concentrated than light from any other kind of light source. This concentration of light can cause instant eye injuries, primarily by burning the retina (the light sensitive portion at the back of the eye). Even if you cannot feel “heat” from a laser beam, it can still potentially injure or blind you or your audience. Even very small amounts of laser light are potentially hazardous even at long distances. Laser eye injuries can happen quicker than you can blink.

It is incorrect to think that because these laser entertainment products use high speed scanned laser beams, that an individual laser beam is safe for eye exposure.

It is also incorrect to assume that because the laser light is moving, it is safe. This is not true. Nor, do the laser beams always move. Since eye injuries can occur instantly, it is critical to prevent the possibility of any direct eye exposure. In the laser safety regulation, it is not legal to aim Class IIIa lasers in areas where people can be exposed. This is true even if it is aimed below people's faces, such as on a dance floor.

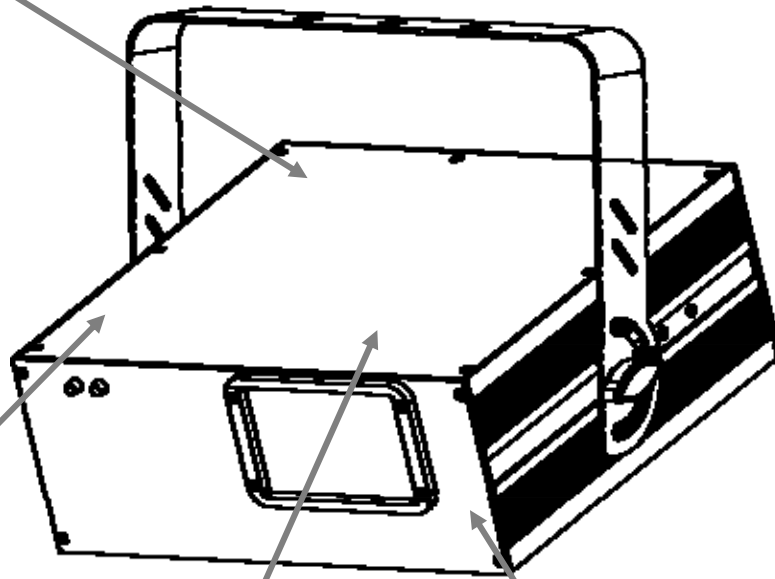


- **Do not operate the laser without first reading and understanding all safety and technical data in this manual.**
- **Always set up and install all laser effects so that all laser light is at least 3 meters (9.8 feet) above the floor on which people can stand. See the “Proper Usage” section later in this manual.**
- **After set up, and prior to public use, test the laser to ensure proper function. Do not use if any defect is detected.**
- **Laser Light - Avoid Direct Eye Exposure.**
- **Do not point lasers at people or animals.**
- **Never look into the laser aperture or laser beams.**
- **Do not point lasers in areas where people can potentially be exposed, such as uncontrolled balconies, etc.**
- **Do not point lasers at highly reflective surfaces, such as windows, mirrors and shiny metal. Even laser reflections can be hazardous.**
- **Never point a laser at aircraft, as this is a US Federal offense.**
- **Never point un-terminated laser beams into the sky.**
- **Do not expose the output optic (aperture) to cleaning chemicals.**
- **Do not use laser if the laser appears to be emitting only one or two beams.**
- **Do not use the laser if the housing is damaged, open, or if the optics appear damaged in any way.**
- **Never open the laser housing. The high laser power levels inside of the protective housing can start fires, burn skin and will cause instant eye injury.**
- **Never leave this device running unattended.**
- **The operation of a Class IIIa laser show is only allowed if the show is controlled by a skilled and well-trained operator, familiar with the data included in this manual.**
- **The legal requirements for using laser entertainment products vary from country to country. The user is responsible for the legal requirements at the location/country of use.**
- **Always use appropriate lighting safety cables when hanging lights and effects overhead.**

# Laser Safety Labels Reproduction

<p><b>LASER LIGHT</b>          AVOID DIRECT EYE EXPOSURE  <b>CLASS IIIa LASER PRODUCT</b>          &lt;5 mW 473 nm &amp; 532 nm 300 mSec – CW    <b>CLASSIFIED PER 21 CFR 1040.10 &amp; .11</b></p>		<p>CHAUVET Lighting          5200 NW 108th Avenue          Sunrise, FL 33351</p>
<p>Complies with US FDA CDRL laser safety standards 21 CFR 1040.10 &amp; 1040.11.</p>		
<p><b>CHAUVET</b>  <i>Value · Innovation · Performance</i></p>		<p><u>WORLDWIDE HEADQUARTERS</u>          CHAUVET          SUNRISL, FLORIDA          USA</p>
<p>NAME: Scorpion™ GBC          ITEM CODE: 10060262          VOLTAGE: 100~240 VAC, 50/60 Hz          FUSE: T 1.6 A, 250 V          CURRENT: 0.3 A @ 115 V          POWER: 23 W          POWER LINKING MAX: 414 W          LIGHT SOURCE: Laser          ORIGIN: Made in P.R.C.          MANUFACTURING DATE:</p>	<p>RoHS            CE  </p>	<p>THIS APPLIANCE MUST BE          GROUND'D            USE ONLY FUSE OF SAME TYPE &amp;          RATING            DISCONNECT FROM MAINS BEFORE          SERVICING            FOR INDOOR USE ONLY</p>

EXPLANATORY,  
 MANUFACTURER'S  
 ID & CERTIFICATION LABEL



**CAUTION – CLASS 3B  
 LASER RADIATION  
 WHEN OPEN. AVOID  
 EXPOSURE TO  
 THE BEAM**

NON INTERLOCKED  
 HOUSING LABEL



LASER HAZARD  
 WARNING LABEL

**LASER APERTURE**

LASER APERTURE LABEL

---

## Laser Emission Data



LASER EXPOSURE



Laser light - Avoid direct eye contact!

Further guidelines and safety programs for safe use of lasers can be found in the ANSI Z136.1 Standard "For Safe Use of Lasers", available from the Laser Institute of America: [www.laserinstitute.org](http://www.laserinstitute.org). Many local governments, corporations, agencies, military and others, require all lasers to be used under the guidelines of ANSI Z136.1. Laser Display guidance can be obtained via the International Laser Display Association: [www.laserist.org](http://www.laserist.org).

### Scorpion™ GBC

Laser Classification	Class IIIa (equiv. to US Class IIIa)
Green Laser Medium	DPSS Nd:YVO4, 532 nm
Blue Laser Medium	473 nm, typical
Beam Diameter	<5 mm at aperture
Pulse Data	All pulses < 4 Hz (>0.25 sec)
Divergence (each beam)	<2 mrad
Divergence (total light)	<160 degrees
Laser Power of Each Beam from Aperture*	<5 mW

\*As measured under IEC measurement conditions for classification.

## Laser Compliance Statement



This laser product complies with EN/IEC 60825-1 Ed 2, 2007-03, and US FDA/CDRH FLPPS via the terms of Laser Notice No. 50 dated June 24, 2007. This laser device is classified 3R. (Class 3R is the international equivalent of US Class IIIa). No maintenance is required to keep this product in compliance with laser performance standards.

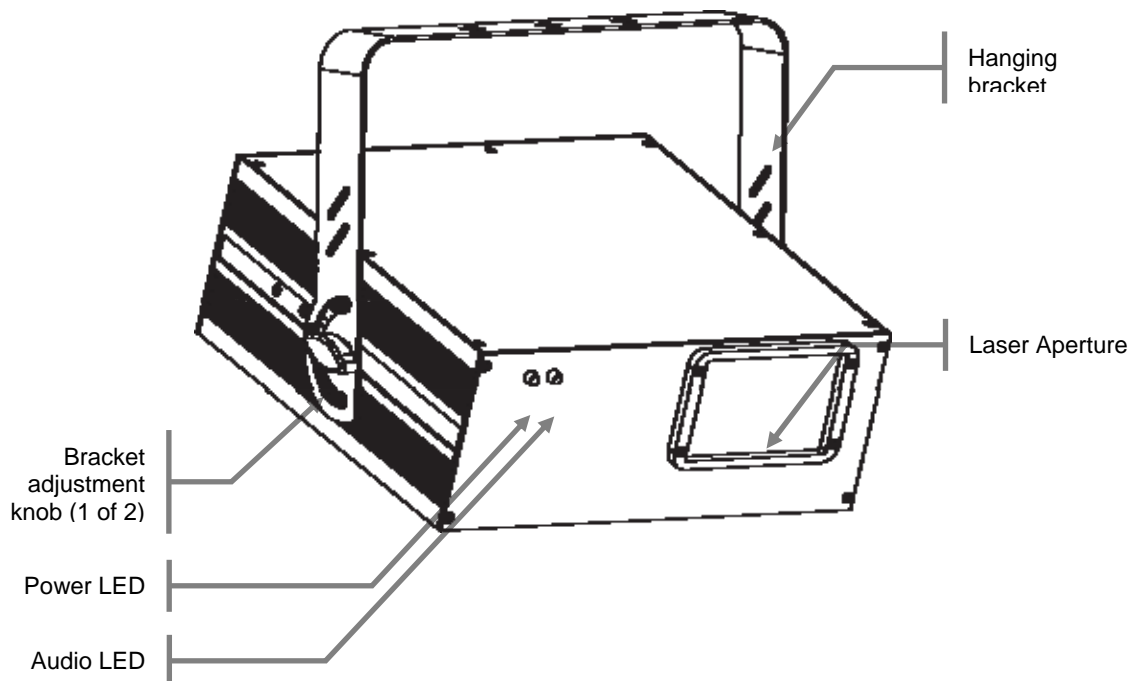
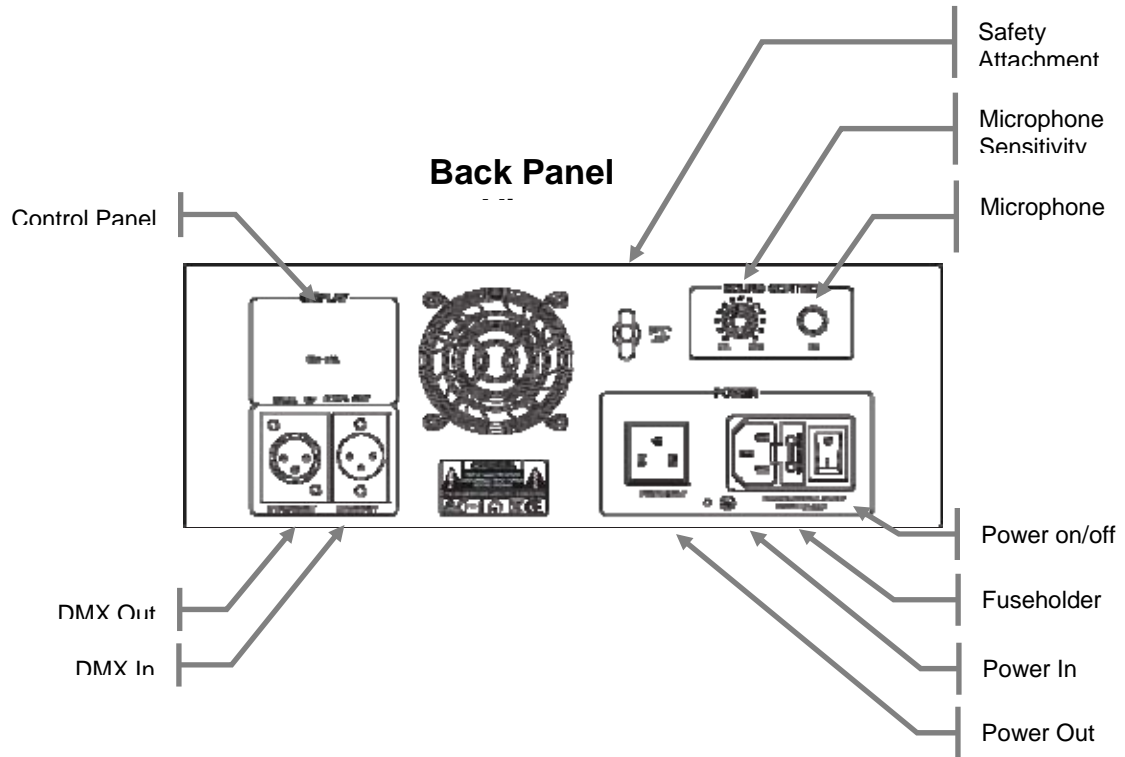


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## 2. INTRODUCTION

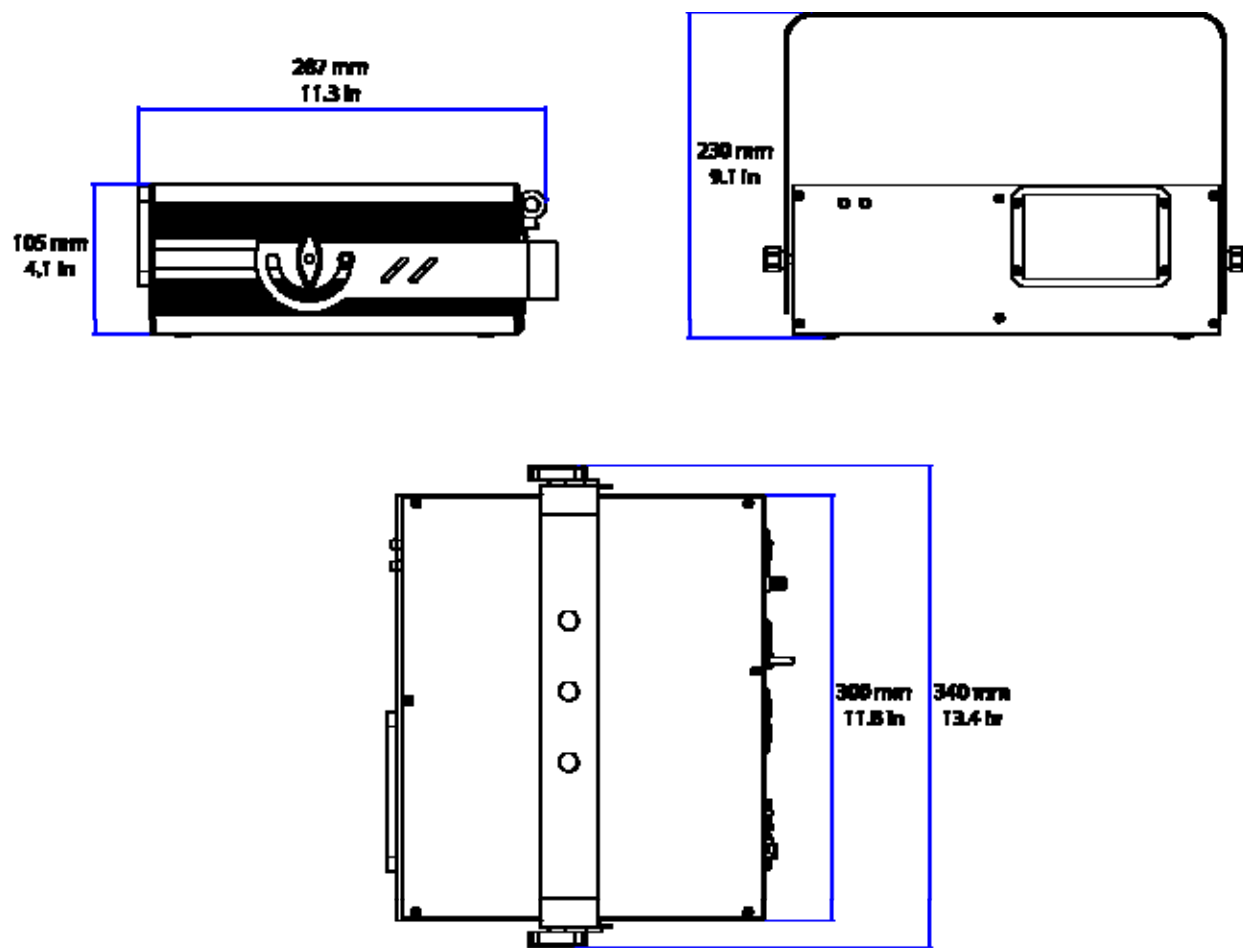
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### Product Overview



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## Product Dimensions



# 3. SETUP

## AC Power

This product runs on 100–240 VAC, 50/60 Hz. Before powering on the unit, make sure the line voltage to which you are connecting it is within the range of accepted voltages.



**Always connect the product to a switched circuit. Never connect the product to a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel is used only as a 0 to 100% switch.**

To determine the power requirements for a particular product, see the label affixed to the back plate of the product or refer to the product's specifications chart. A product's listed current rating indicates its average current draw under normal conditions.



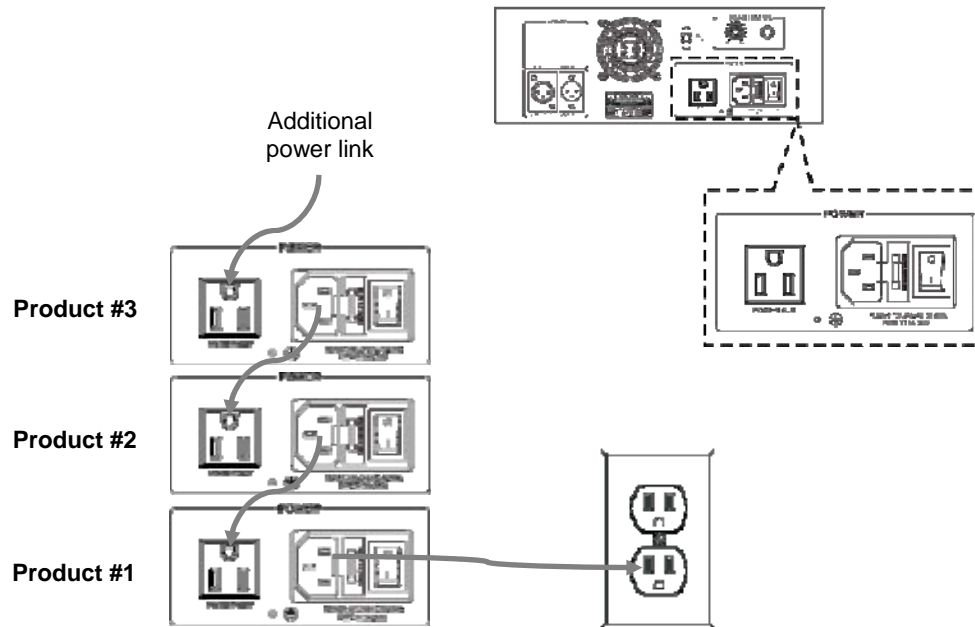
**Always connect the product to a circuit with a suitable electrical ground.**

## Power Linking

This product contains power linking via the Edison outlet located in front of the power input cable. Please see the diagram below for further explanation.



**The maximum number of products that may be linked for this product is 20.**



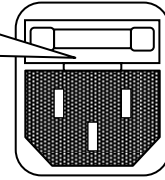
**The power linking diagram shown above corresponds to the North American version of this product ONLY! If using this product in other markets, you must consult with the local CHAUVET® distributor, as power linking connectors and requirements may differ in your country or region.**

---

## Fuse Replacement

1. With a flat head screwdriver wedge the fuse holder out of its housing.
2. Remove the damaged fuse from its holder and replace with exact same type fuse.
3. Insert the fuse holder back in its place and reconnect power.

The fuse is located inside this



Disconnect the power cord before replacing a fuse and always replace with the same type fuse.

## Mounting

### Orientation

This product may be mounted in any safe position, provided there is adequate room for ventilation.

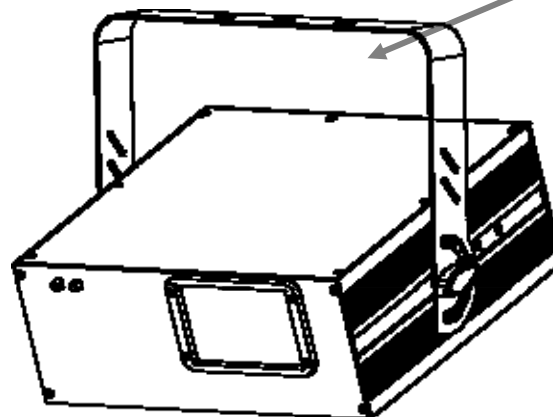
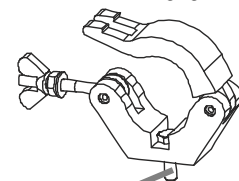
### Rigging

It is important never to obstruct the fan or vents pathway. Mount the product using, a suitable "C" or "O" type clamp. Adjust the angle of the product by loosening both knobs and tilting the product. After finding the desired position, retighten both knobs.

- When selecting installation location, take into consideration access and routine maintenance.
- Safety cables must always be used.
- Never mount in places where the product will be exposed to rain, high humidity, extreme temperature changes or restricted ventilation.
- Do not use any tool on the bracket adjustment knob. Hand-tighten only!

Note!  
Clamp is sold separately.

*Hanging Clamp*

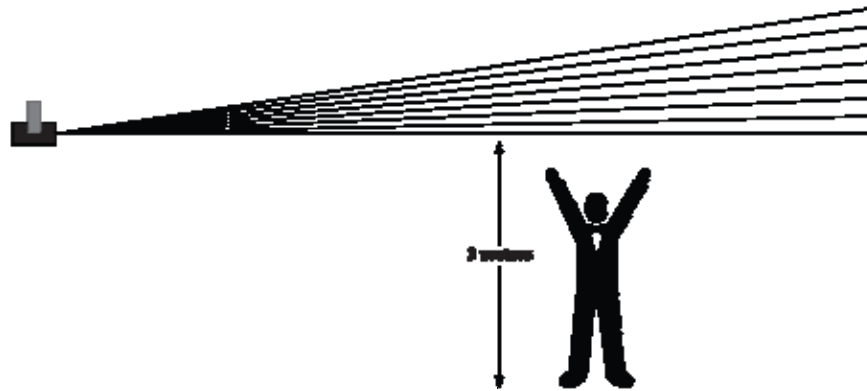


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## Proper Usage

This product is for overhead mounting only. For safety purposes, CHAUVET® recommends mounting your lighting effect products on steady elevated platforms or sturdy overhead supports using suitable hanging clamps. In all cases, you must use safety cables. You can obtain appropriate mounting hardware from your lighting vendor.

International laser safety regulations require that laser products must be operated in the fashion illustrated below, with a minimum of 3 meters (9.8 ft) of vertical separation between the floor and the lowest laser light vertically. Additionally, 3 meters of horizontal separation is required between laser light and audience or other public spaces.



**CAUTION - USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE**

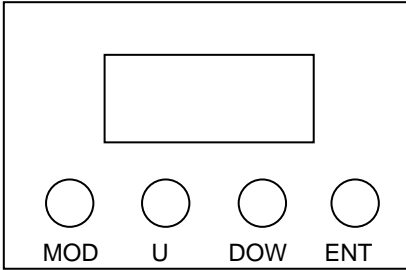
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# 4. OPERATION

## Control Panel

Access control panel functions using the four panel buttons located directly underneath the LED Display.

Button	Function
<MODE>	Used to access the menu or to return to a previous menu option
<UP>	Scrolls through menu options in ascending order
<DOWN>	Scrolls through menu options in descending order
<ENT>	Used to select and store the current menu or option within a menu



The Control Panel LED Display shows the menu items you select from the menu map. When a menu function is selected, the display will show immediately the first available option for the selected menu function. To select a menu item, press <ENT>.

Use <UP> and <DOWN> to navigate the menu map and menu options. Press <ENT> to access the menu function currently displayed or to enable a menu option. To return to the previous option or menu without changing the value, press <MODE>.

## DMX Operation

This is the operating mode which will allow for control with an external DMX controller. You must set the starting address for this mode. If this is your first time using DMX, then it is recommended that you refer to the “DMX Primer” section in the “Appendix” of this manual.



**When operating in DMX receiving mode, the display will blink at a constant rate in the absence of DMX signal.**

Use the following procedure for setting the product to DMX operation.

1. Press <MODE> repeatedly until a number from 001~512 appears on the LED display.
2. Use <UP> and <DOWN> to select the DMX starting address.
3. Press <ENT>.

---

## DMX Channel Summary

CHANNEL	FUNCTION
1	Control Mode
2	Pattern Selection
3	Color selection
4	Color Changing Speed
5	Zoom
6	X Axis Move (Pan)
7	Y Axis Move (Tilt)
8	Y Axis Roll
9	X Axis Roll
10	Z Axis Rotate

## Standalone Operation

### Automatic

This product has preprogrammed automatic programs. These are accessed via the LED display on the back panel of the product. Please see the instructions below for further explanation.

1. Press **<MODE>** until a standalone mode appears on the LED display. See the chart under menu functions to identify these.
2. Use **<UP>** and **<DOWN>** to scroll through the standalone modes.
3. Press **<ENT>** when the desired automatic standalone mode has been located.

### Sound-Active

This product has preprogrammed sound-triggered programs. These are accessed via the LED display on the back panel of the product. The sound control adjustment knob may be used to adjust the microphone sensitivity. Please see the instructions below for further explanation.

1. Press **<MODE>** until a standalone mode appears on the LED display. See the chart under menu functions to identify these.
2. Use **<UP>** and **<DOWN>** to scroll through the standalone modes.
3. Press **<ENT>** when the desired sound standalone mode has been located.

### Laser Sky

This product has preprogrammed laser sky programs. These are accessed via the LED display on the back panel of the product. Please see the instructions below for further explanation.

1. Press **<MODE>** until a standalone mode appears on the LED display. See the chart under menu functions to identify these.
2. Use **<UP>** and **<DOWN>** to scroll through the standalone modes.
3. Press **<ENT>** when the desired laser sky standalone mode has been located.

## Master/Slave Operation

When operating more than one product in standalone mode, it is possible to link them in a master/slave configuration. This is when one or more slave products will operate identically to the master product. Please see the instructions below for further explanation on how to set a product to slave mode.

1. Press **<MODE>** until slave mode appears on the LED display. See the chart under menu functions to identify this.
2. Press **<ENT>**.



A product that is operating in one of the standalone modes will function as a master unit when the products are linked using DMX cables in a daisy chain configuration.

## Menu Functions


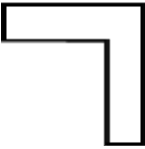





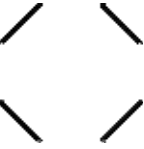


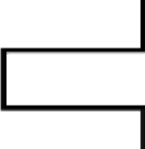
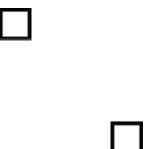
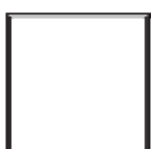

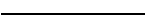
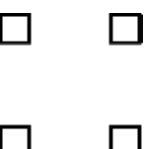




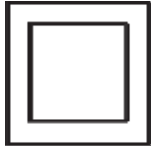









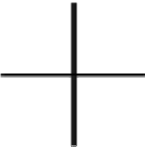

MAIN FUNCTION	SELECTION	DESCRIPTION/VALUES
DMX mode	001	001 - 511 DMX starting address assignment
Standalone modes	AFB	Automatic fast (blue)
	ASB	Automatic slow (blue)
	AFG	Automatic fast (green)
	ASG	Automatic slow (green)
	AFC	Automatic fast (cyan)
	ASC	Automatic slow (cyan)
	AFN	Automatic fast (mixed)
	ASN	Automatic slow (mixed)
	S B	Sound (blue)
	S G	Sound (green)
	S C	Sound (cyan)
	S N	Sound (mixed)
	rDN	Random
	LSb	Laser sky (blue)
	LSG	Laser sky (green)
LSC	Laser sky (cyan)	
LSS	Laser sky (sound)	
Slave Mode	SLA	Slave mode
Test Mode	tSt	Used for service purposes



## DMX Channel Values

CHANNEL	VALUE	FUNCTION
1	000 ⇔ 017	<b>Control Mode</b> Manual Mode (use channels 2-10 in this mode)
	018 ⇔ 035	Automatic fast (blue)
	036 ⇔ 053	Automatic slow (blue)
	054 ⇔ 071	Automatic fast (green)
	072 ⇔ 089	Automatic slow (green)
	090 ⇔ 107	Automatic fast (cyan)
	108 ⇔ 125	Automatic slow (cyan)
	126 ⇔ 143	Automatic Fast (mixed)
	144 ⇔ 161	Automatic Slow (mixed)
	162 ⇔ 179	Sound (blue)
	180 ⇔ 197	Sound (green)
	198 ⇔ 215	Sound (cyan)
	216 ⇔ 233	Sound (mixed)
	234 ⇔ 255	Random (Auto)
2	000 ⇔ 255	<b>Pattern selection (only when CH1 is between 000-017)</b> See the following page for channel values.
3	000 ⇔ 024	<b>Color selection</b> Blackout
	025 ⇔ 049	Preprogrammed Color
	050 ⇔ 074	Blue
	075 ⇔ 099	Green
	100 ⇔ 124	Cyan
	125 ⇔ 149	Alternate Blue-Green
	150 ⇔ 174	Alternate Green-Cyan
	175 ⇔ 199	Alternate Blue-Cyan
	200 ⇔ 224	Alternate Blue-Green-Cyan
	225 ⇔ 255	Color Roll
4	000 ⇔ 004	<b>Color Changing Speed</b> Stop
	005 ⇔ 255	Slow ⇔ fast
5	000 ⇔ 127	<b>Zoom</b> 100%~5%
	128 ⇔ 169	Zoom In Macro
	170 ⇔ 209	Zoom Out Macro
	210 ⇔ 255	Zoom In and Out Macro
6	000 ⇔ 127	<b>X-Axis Move (Pan)</b> 128 different positions on Y-Axis
	128 ⇔ 191	Move Left to right to Left (Slow ⇔ fast)
	192 ⇔ 255	Move Left to right to Left (Fast ⇔ slow)
7	000 ⇔ 127	<b>Y-Axis Move (Tilt)</b> 128 different positions on X-Axis
	128 ⇔ 191	Move Up to down to Up (Slow ⇔ fast)
	192 ⇔ 255	Move Up to down to Up (Fast ⇔ slow)
8	000 ⇔ 127	<b>X-Axis Roll</b> Y-Axis Roll
	128 ⇔ 191	Roll (Slow ⇔ fast)
	192 ⇔ 255	Roll (Fast ⇔ slow)
9	000 ⇔ 127	<b>Y-Axis Roll</b> Y-Axis Roll
	128 ⇔ 191	Roll (Slow ⇔ fast)
	192 ⇔ 255	Roll (Fast ⇔ slow)
10	000 ⇔ 127	<b>Rotate</b> Z-Axis Roll
	128 ⇔ 191	Clockwise Rotate
	192 ⇔ 255	Counterclockwise Rotate

## Channel 2 Values (Pattern Selection)

Value	Pattern	Value	Pattern	Value	Pattern	Value	Pattern
000~007		064~071		128~135		190~197	
008~015		072~079		136~143		198~205	
016~023		080~087		144~151		206~213	
024~031		088~095		152~159		214~221	
032~039		096~103		160~167		222~229	
040~047		104~111		168~175		230~237	
048~055		112~119		176~181		238~245	
056~063		120~127		182~189		246~255	

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# 5. TECHNICAL INFORMATION

## General Troubleshooting

Symptom	Solution(s)	Applies to			
		Lights	Foggers & Snow	Controllers	Dimmers & Chaser
Breaker/Fuse keeps blowing	Check total load placed on device				✓
Chase is too slow	Check user manual for speed adjustment	✓		✓	✓
Device has no power	Check for power on Mains. Check device's fuse. (internal and/or external)	✓		✓	✓
Loss of signal	Use only DMX cables Install terminator Note: Keep DMX cables separated from power cables or black lights.	✓	✓	✓	✓
No laser output	Bounce mirror motor may have shifted during shipping; readjust	✓			

If you still have a problem after trying the above solutions, please contact CHAUVET® Technical Support.

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## Returns Procedure

Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Merchandise Authorization Number (RMA #). Products returned without an RMA # will be refused. Call CHAUVET® and request RMA # prior to shipping the product. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack product, any shipping damage resulting from inadequate packaging is the customer's responsibility. CHAUVET® reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

**Note:** If you are given an RMA #, please include the following information on a piece of paper inside the box:

- Your name
- Your address
- Your phone number
- The RMA #
- A brief description of the symptoms

## Contact Us

### World Wide

#### **General Information**

CHAUVET®  
5200 NW 108<sup>th</sup> Avenue  
Sunrise, FL 33351  
VOICE: 954.929.1115  
FAX: 954.929.5560  
TOLL FREE: 800.762.1084

#### **Technical Support**

CHAUVET®  
5200 NW 108<sup>th</sup> Avenue  
Sunrise, FL 33351  
VOICE: 954.929.1115 (**Press 4**)  
FAX: 954.929.5560 (**Attention: Service**)

#### **World Wide Web**

[www.chauvetlighting.com](http://www.chauvetlighting.com)

## DMX Primer

There are 512 channels in a DMX connection. Channels may be assigned in any manner. A product capable of receiving DMX will require one or a number of sequential channels. The user must assign a starting address on the product that indicates the first channel reserved in the controller. There are many different types of DMX controllable products and they all may vary in the total number of channels required. Choosing a start address should be planned in advance. Channels should never overlap. If they do, this will result in erratic operation of the products whose starting address is set incorrectly. You can however, control multiple products of the same type using the same starting address as long as the intended result is that of unison movement or operation. In other words, the products will be slaved together and all respond exactly the same.

DMX products are designed to receive data through a serial Daisy Chain. A Daisy Chain connection is where the DATA OUT of one product connects to the DATA IN of the next product. The order in which the products are connected is not important and has no effect on how a controller communicates to each product. Use an order that provides for the easiest and most direct cabling. Connect products using shielded two conductor twisted pair cable with three pin XLR male to female connectors. The shield connection is pin 1, while pin 2 is Data Negative (S-) and pin 3 is Data positive (S+).

### 3-Pin to 5-Pin Conversion Chart



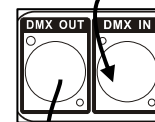
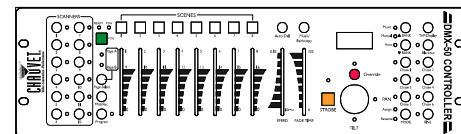
If you use a controller with a 5-pin DMX output connector, you will need to use a 5-pin to 3-pin adapter. The chart below details a proper cable conversion:

3-PIN TO 5-PIN CONVERSION CHART		
Conductor	3-Pin Female (Output)	5-Pin Male (Input)
Ground/Shield	Pin 1	Pin 1
Data ( - ) signal	Pin 2	Pin 2
Data ( + ) signal	Pin 3	Pin 3
Not used		Pin 4
Not used		Pin 5

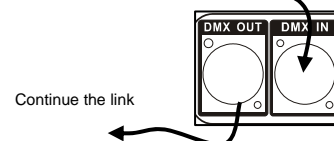
### Setting up a DMX Serial Data Link

1. Connect the (male) 3-pin connector side of the DMX cable to the output (female) 3-pin connector of the controller.
2. Connect the end of the cable coming from the controller which will have a (female) 3-pin connector to the input connector of the next product consisting of a (male) 3-pin connector.
3. Then, proceed to connect from the output as stated above to the input of the following product and so on.
4. After the last product, connect a DMX terminator.

Universal DMX Controller



This drawing provides a general illustration of the DMX input/output panel of a lighting product.



## Data Cabling

To link products together you must obtain data cables. You can purchase CHAUVET® certified DMX cables directly from a dealer/distributor or construct your own cable. If you choose to create your own cable, use data-grade cables that can carry a high quality signal and are less prone to electromagnetic interference.

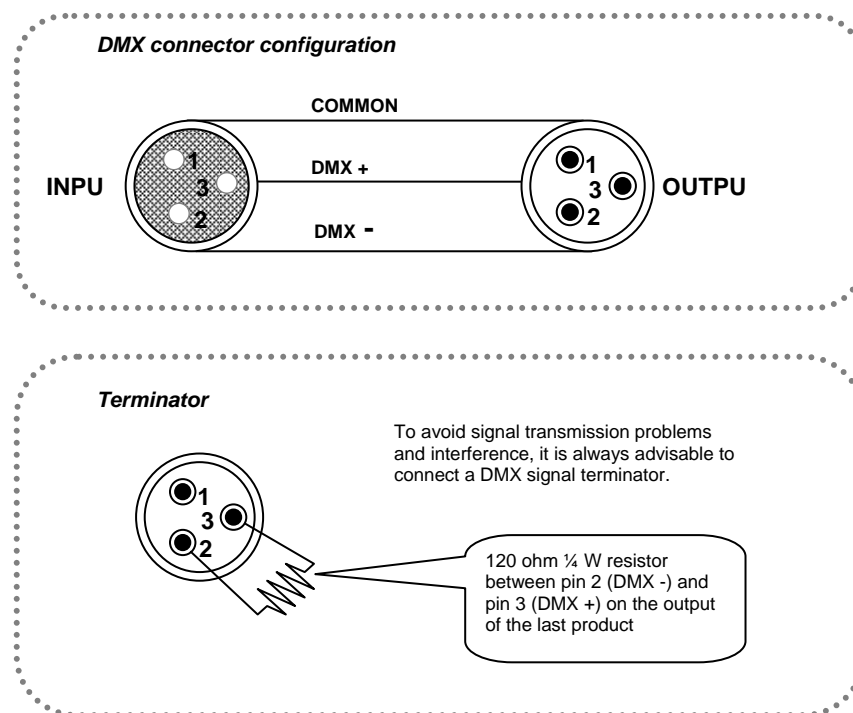
### DMX Data Cable

Use a Belden® 9841 or equivalent cable which meets the specifications for EIA RS-485 applications. Standard microphone cables cannot transmit DMX data reliably over long distances. The cable must have the following characteristics:

Type:	shielded, 2-conductor twisted pair
Maximum capacitance between conductors:	30 pF/ft
Maximum capacitance between conductor and shield:	55 pF/ft
Maximum resistance:	20 ohms/1000 ft
Nominal impedance:	100 ~ 140 ohms

### Cable Connectors

Cabling must have a male XLR connector on one end and a female XLR connector on the other end.



Do not allow contact between the common and the product's chassis ground. Grounding the common can cause a ground loop, and your product may perform erratically. Test cables with an ohm meter to verify correct polarity and to make sure the pins are not grounded or shorted to the shield or each other.

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## Product Linking

You will need a serial data link to run light shows of one or more products using a DMX controller or to run synchronized shows on two or more products set to a master/slave operating mode. The combined number of channels required by all the products on a serial data link determines the number of products the data link can support.



**Products on a serial data link must be daisy chained in one single line. To comply with the EIA-485 standard, no more than 32 products should be connected on one data link. Connecting more than 32 products on one serial data link without the use of a DMX optically-isolated splitter may result in deterioration of the digital DMX signal.**

- Maximum recommended serial data link distance: 500 m (1640 ft)
- Maximum recommended number of products on a serial data link: 32

## Setting the Starting Address

This DMX mode enables the use of a universal DMX controller device. Each product requires a start address from 1~512. A product requiring one or more channels for control begins to read the data on the channel indicated by the start address. For example, a product that uses six DMX channels and was addressed to start on DMX channel 100, would read data from channels: 100, 101, 102, 103, 104, and 105. Choose start addresses so that the channels used do not overlap, and note the start address selected for future reference.

If this is your first time addressing a product using the DMX control protocol, we suggest jumping to the “Appendix” section and reading the heading “DMX Primer”. It contains very useful information that will help you understand its use.

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# TECHNICAL SPECIFICATIONS

## WEIGHT & DIMENSIONS

Length .....	11.3 in (287 mm)
Width .....	13.4 in (340 mm)
Height .....	9.1 in (230 mm)
Weight .....	7.8 lbs (3.5 kg)

## POWER

Auto-ranging power supply .....	100~240 VAC, 50/60 Hz
Fuse .....	T 1.5 A, 250 V (slow-blow)
Power Consumption@ 120 V .....	23 W (0.3 A) max
Inrush Current@ 120 V .....	0.3 A
Power Consumption@ 230 V .....	20 W (0.2 A) max
Inrush Current@ 230 V .....	0.2 A
Power Output .....	20 units max

## LASER

Green diode .....	532 nm, 30 mW
Blue diode .....	473 nm, 40 mW
Laser Type .....	DPSS
Cooling .....	Fan Cooled

## RANGE

Coverage Angle .....	47°
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## THERMAL

Maximum ambient temperature .....	104° F (40° C)
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## CONTROL & PROGRAMMING

Data input .....	locking 3-pin XLR male socket
Data output .....	locking 3-pin XLR female socket
Data pin configuration .....	pin 1 shield, pin 2 (-), pin 3 (+)
Protocols .....	DMX-512 USITT
DMX Channels .....	10

## ORDERING INFORMATION

Scorpion™ GBC .....	SCORPIONGBC
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## WARRANTY INFORMATION

Warranty .....	2-year limited warranty
Laser Diode Warranty .....	90-day limited warranty